

Comparisons of Job Characteristics

Focus Occupation: [Electrical and Electronic Engineering Technicians \(17-3023\)](#)

Associated Occupation: [Aerospace Engineering and Operations Technicians \(17-3021\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Electrical and Electronic Engineering Technicians (17-3023)

Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	23.6	12.4	<< Extensive education and/or training may be required
Computers and Electronics	8.4	17.3	15.8	0 Current knowledge level may be sufficient
Mechanical	6.8	17.3	11.6	<< Extensive education and/or training may be required
Production and Processing	6.0	13.2	9.2	<< Extensive education and/or training may be required
Public Safety and Security	6.9	13.2	4.7	<< Extensive education and/or training may be required
Design	5.2	12.2	10.2	< Expanded education and/or training may be required
Law and Government	5.9	10.7	3.6	<< Extensive education and/or training may be required
Physics	4.3	9.7	6.3	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Electrical and Electronic Engineering Technicians (17-3023)

Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Quality Control Analysis	5.9	11.1	8.8	< A higher skill level may be required
Operation Monitoring	6.6	11.0	9.4	< A higher skill level may be required
Science	4.5	9.7	4.3	<< Extensive development of skills in this area may be required

Troubleshooting	4.5	9.2	8.8	0	Current skill level may be sufficient
Equipment Maintenance	3.5	8.9	7.9	<	A higher skill level may be required
Repairing	3.4	7.2	8.0	>	Skill level is likely sufficient
Equipment Selection	3.3	6.1	7.0	>	Skill level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 97			
Focus Occupation: Electrical and Electronic Engineering Technicians (17-3023) Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Problem Sensitivity	11.1	13.6	12.0	<	Some improvement in abilities may be required
Information Ordering	9.9	11.6	11.0	0	Current ability level may be sufficient
Visualization	7.5	10.1	9.8	0	Current ability level may be sufficient
Flexibility of Closure	7.8	9.6	8.3	<	Some improvement in abilities may be required
Visual Color Discrimination	6.4	8.7	9.6	>	Current ability level is likely sufficient
Hearing Sensitivity	5.6	8.1	6.5	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 86
Focus Occupation: Electrical and Electronic Engineering Technicians (17-3023) Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)		
Work Activities	Exclusivity of Activity	
Analyze engineering test data	71	
Analyze technical data, designs, or preliminary specifications	47	
Calculate engineering specifications	64	
Calibrate or adjust electronic equipment or instruments to specification	67	
Communicate technical information	4	
Confer with engineering, technical or manufacturing personnel	25	
Develop plans for programs or projects	31	
Draw prototypes, plans, or maps to scale	57	
Evaluate engineering data	60	
Examine engineering documents for completeness or accuracy	62	
Inspect facilities or equipment for regulatory compliance	51	
Install electronic equipment, components, or systems	62	
Install/connect electrical equipment to power circuit	57	

Operate precision test equipment	81
Prepare technical reports or related documentation	22
Read blueprints	10
Read schematics	34
Read technical drawings	7
Repair or replace electrical wiring, circuits, fixtures, or equipment	49
Test equipment as part of engineering projects or processes	67
Understand engineering data or reports	48
Understand service or repair manuals	40
Understand technical operating, service or repair manuals	6
Use drafting or mechanical drawing techniques	50
Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use knowledge of metric system	39
Use precision measuring tools or equipment	17
Use scientific research methodology	21
Use technical regulations for engineering problems	61

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 59

Focus Occupation: Electrical and Electronic Engineering Technicians (17-3023)
Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Electrical measuring and testing equipment	7
Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Light and wave generating and measuring equipment	4
Machine tools	7
Power tools	2
Soldering and brazing and welding machinery and supplies	6
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.